Vector Aviation TFRs - v2

Domain Portfolio: Weather Imagery | Domain: Aviation | API Name: Vector Aviation TFRs - v2 **Restricted**

Geography: Global **Attribution Required:** NO **Attribution Requirements:** N/A

Overview

The Feature Data Service (FDS) API provides geographic features for a number of products. The client can use these features to render a visual representation of data.

- FDS provides geometric vector data where each feature can be a set of points, a polygon or set of polygons, a linestring or set of linestrings, or any other valid GeoJSON type
- Each feature is described by a set of geographic coordinates and a set of properties.
- Each feature is uniquely identified by the *combination* of its product key, feature key and valid time; the valid time is used to assign the feature to a unique feature set.
- For additional details about FDS, please see the Weather Company Data | Data Visualization - Weather Imagery | Common Usage Guide

Using FDS products requires a multi-step workflow to retrieve the necessary data for the specific product data request. Step 2 requires the **'time'** value parameter, found in the response from Step 1.

- **Step 1:** Get Product Info - Provides time-based labels for the feature sets that are currently available.
- **Step 2:** Get Features for a Single Tile - Provides all geographic features for a single tile, taken from a single feature set within a specific product.

HTTP Headers and Data Lifetime - Caching and Expiration

For details on appropriate header values as well as caching and expiration definitions, please see **The Weather Company Data | API Common Usage Guide.**

URL Construction

Step 1: Get Product Info
Required Parameters: **productKey,** apiKey=**yourApiKey** **||** **Optional Parameters:** meta, max-times https://api.weather.com/v2/vector-api/products/**<productKey>**/info?**apiKey=yourApiKey**
The [**/products/{productKey}/info**] request provides the labels for the feature sets that are currently available. These labels are required as input for the subsequent [**/products/{productKey}/features**] request, and they are invoked in that request's **'time'** parameter.
https://api.weather.com/v2/vector-api/products/6001/info?meta=true&max-times=12&apiKey=yourApiKey
Step 2: Get Features for a Single Tile
Required Parameters: **productKey, time, lod, x, y,** apiKey=**yourApiKey** **||** **Optional Parameters:** declutter, tile-size https://api.weather.com/v2/vector-api/products/**<productKey>**/features?time=**<time>**&lod=**<lod>**&x=**<x>**&y=**<y>**&**apiKey=yourApiKey**
The [**/products/{productKey}/features**] request provides a set of features for a single tile, from a particular feature set within a particular product. Each feature contains a small set of key metadata properties, including its ID and valid time, which are required as input for any subsequent [**/products/{productKey}/feature-details**] request, as the **'feature-id'** and **'valid-time'** parameters.
https://api.weather.com/v2/vector-api/products/6001/features?time=1492016701805&lod=10&x=175&y=409&tile-size=256&apiKey=yourApiKey

Product Data Dictionary: 6001 - Aviation TFRs

The source of the data includes FDC NOTAMs supplemented by data from the FAA. The product is setup such that each valid_time includes the complete current and future state. Each new valid_time obsoletes the prior state.

Also note that a single TFR can have zero to many effective regions and different active time periods. Since the active time period range for region A could differ from region B, it will be possible such that region A ages out of the active state prior to region B aging out. This will result in a NOTAM being partially included as effective regions are no longer valid.

Some TFRs have the special case of having no corresponding region, e.g. Special Security Instructions. These TFRs do contain a single point geometry by default, chosen to be Washington, DC.

The JSON data includes the following fields:

Field *Found in the GeoJSON response, in each feature's* ***properties*** *field*	**Description**
Valid_time	Unix Timestamp when the Oceanic Track was queried
Tfr_id	FDC NOTAM ID. Note that a single NOTAM can include more than one effective region.
Issue_time	FDM NOTAM issuance timestamp in ISO-8601 format
Classification	Classification based on the CFR. Expected values include Special Security, Rescue/Spill/Volcano, Fire/Spraying/Rescue, Special Event of Public Interest, Disaster/Hazard Area, Disaster in Hawaii, Emergency Air Traffic Rules, Presidential, Rocket Launch/Flight, High Barometric Pressure, Sports Event/Air Show, or Unknown.
Cfr	Code of Federal Regulations
Tfr_text	FDC NOTAM Text
Start_time	Region Effective Start Timestamp in ISO-8601 format
Start_time_mod	Textual description of Effective Start Time
End_time	Region Effective End Timestamp in ISO-8601 format
End_time_mod	Textual description of Effective End Time
Schedule	Additional Start/End Time within the NOTAM effective Start/End Times, e.g. DLY 0100-0600
Effective_times	Array of effective times within the NOTAM effective Start/End Times, e.g. 1703032030 UTC UNTIL 1703060330 UTC
Altitude_datum	Altitude reference, e.g. AGL or MSL

Upper_level	Upper vertical level extent of TFR region, e.g. FL180. The lower extent is inferred as the surface
Upper_fl	Numeric representation of the upper vertical extent in Flight Level units.